

REMARKS

This preliminary amendment is being presented prior to the issuance of a first office action. Claims 7-25 are now in this case. Claims 1-6 have been cancelled.

The Summary of the invention has been replaced by a new summary of the invention that supports new claims 7-25. Claims 7-25 are also supported by the Detailed Description of the Invention. No new matter has been added.

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Respectfully Submitted,



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Marked up Version of the Amended Brief Summary of the Invention

[An aspect of the invention provides a method of forming a relational database. The method includes mapping a corresponding unique key to each tree component of an Extensible Markup Language (XML) document. The mapping includes forming each of the corresponding unique keys as associated tree strings. Each of the associated tree strings includes in corresponding hierarchical order derived from the tree components a parent, a child, and a descriptor. The parent is an element, the child is an attribute, and the descriptor is text. The method further includes assigning a qualifier, as warranted, to the child that has a possibility of repeating with another child sharing the parent in common and assigning another qualifier, as warranted, to the descriptor that has a possibility of repeating with another descriptor sharing the child in common.

Another aspect of the invention provides a relational database structure. The relational database structure includes a database that contains corresponding unique keys mapped to tree components of an Extensible Markup Language (XML) document. Each of the corresponding unique keys is associated with tree strings and each of the associated tree strings includes in corresponding hierarchical order derived from the components a parent, a child, and a descriptor. The parent is an element, the child is an attribute, and the descriptor is text. The database also includes a qualifier assigned, as warranted, to the child that has a possibility of repeating with another child sharing the parent in common. The database also includes another qualifier assigned, as warranted, to the descriptor that has a possibility of repeating with another descriptor sharing the child in common.]

An aspect of the invention provides a method of forming a relational database from an Extensible Markup Language (XML) document. The XML document includes multiple nodes. The method includes assigning an identifier to every node of the XML document and assigning a

respective sequence identifier to each node of the XML document. The respective sequence identifiers identify an order of the nodes in the XML document. The method also includes converting each node of the XML document into a respective row of the relational database.

Another aspect of the invention provides a method of forming a relational database from an Extensible Markup Language (XML) document. The method includes assigning an identifier to the XML document and creating a row of the relational database that includes the identifier, and content of one of the plurality of nodes that makes up the XML document.

Yet another aspect of the invention provides a relational database. The database includes a row containing content from a node of an Extensible Markup Language (XML) document. The row also includes an XML document identifier.

The invention will next be described in connection with certain illustrated embodiments and practices. However, it will be clear to those skilled in the art that various modifications, additions and subtractions can be made without departing from the spirit or scope of the claims.